

## CLAIMS

What is claimed is:

1. A method for optimizing the stimulation of the entire interval of an earth formation containing multiple zones of multiple Fracture Gradients, comprising the steps of:
  - (a) pumping fluid into a well bore to initiate hydraulic treatment of a first intermediate zone having a first Fracture Gradient;
  - (b) using the instant shut in pressure to determine the Fracture Gradient of the first intermediate zone;
  - (c) using ball sealers to block perforations through said casing located within said first intermediate zone and diverting said pumped fluid into a second intermediate zone;
  - (d) pumping fluid into said well bore to initiate hydraulic treatment of said second intermediate zone having a second Fracture Gradient;
  - (e) using the instant shut in pressure to determine the Fracture Gradient of said second intermediate zone;
  - (f) unseating said ball sealers from said perforations; and
  - (g) hydraulically stimulating said first intermediate zone and said second intermediate zone.